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**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No. Q55595

Kenichi MIYAZAKI

Appln. No. 09/386,000

Group Art Unit: 3651

Confirmation No. 9906

Examiner: Patrick H. MACKEY

Filed: August 30, 1999

For: LARGE PRINTER

**SUBMISSION OF APPEAL BRIEF**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. A check for the statutory fee of \$500.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37 Appellant is submitting an Appeal Brief to appeal from the Office Action dated January 24, 2005, wherein claims 1-6, 13, 15-18, 26 and 31 are rejected.<sup>1</sup> This Appeal Brief is accompanied by a Submission which includes the required appeal fee set forth in 37 C.F.R. § 41.20(b)(2). Appellant's Notice of Appeal was filed on April 22, 2005. Therefore, the present Appeal Brief is timely filed.

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<sup>1</sup> Claims 1-6, 13, 15-18, 26 and 31 have been twice rejected and, thus, are ripe for appeal.

## **Table of Contents**

I. REAL PARTY IN INTEREST .....	3
II. RELATED APPEALS AND INTERFERENCES.....	4
III. STATUS OF CLAIMS .....	5
IV. STATUS OF AMENDMENTS .....	6
V. SUMMARY OF THE CLAIMED SUBJECT MATTER .....	7
VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL .....	12
VII. ARGUMENT .....	14
CLAIMS APPENDIX.....	29
EVIDENCE APPENDIX:.....	35
RELATED PROCEEDINGS APPENDIX.....	36

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

**I. REAL PARTY IN INTEREST**

The real party in interest is SEIKO EPSON CORPORATION (Assignee) by virtue of an assignment executed by the inventor (Appellant), on October 27, 1999, and recorded by the Assignment Branch of the U.S. Patent and Trademark Office on November 10, 1999 (at Reel 010379, Frame 0018).

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

## **II. RELATED APPEALS AND INTERFERENCES**

Upon information and belief, there are no other prior or pending appeals, interferences, or judicial proceedings known to Appellant, Appellant's representatives or the Assignee that may be related to, be directly affected by, or have a bearing on the Board's decision in this appeal.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

### **III. STATUS OF CLAIMS**

The present application was filed on August 30, 1999 with original claims 1-24. Claims 7-12 and 19-24 were canceled in an Amendment filed on December 19, 2000, subsequent to a Restriction Requirement in an Office Action dated July 7, 2000. Claim 14 was canceled in an Amendment filed on April 3, 2001. New claims 25-30 were added in an Amendment filed on February 25, 2003. Claims 25 and 27-30 were subsequently canceled in an Amendment filed on July 8, 2003. New claim 31 was added in Amendment filed on November 19, 2003. Accordingly, claims 1-6, 13, 15-18, 26 and 31 are the claims currently pending in the application. Claims 1-6, 13, 15-18, 26 and 31, which have each been at least twice rejected, are the claims on appeal (*see* Claims Appendix).

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

#### **IV. STATUS OF AMENDMENTS**

A Continued Prosecution Application (CPA) was filed on May 3, 2001 to force entry and consideration of the Amendment Under 37 C.F.R. § 1.116 previously filed on April 3, 2001.

A Request For Continued Examination (RCE) was filed on March 1, 2002 to force entry and consideration of the Amendment Under 37 C.F.R. § 1.116 previously filed on January 31, 2002.

An RCE was filed on March 25, 2003 to force entry and consideration of the Amendment Under 37 C.F.R. § 1.116 previously filed on February 25, 2003.

Thereafter, no other amendments have been filed subsequent to a final rejection.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

**Background**

Large printers (*e.g.*, those capable of printing a large sheet of paper having a width of 420 mm or more) may use rolls of paper (Appellant's specification: p. 1, lns. 5-7). Such large printers are designed so that a paper feeding path runs from the rear of the printer to the front of the printer, and the rolls of paper are located at the rear of the printer's main body (Appellant's specification: p. 1, lns. 8-12). Consequently, to replace a roll of the paper, a user must be positioned behind the printer, and as a result, the required installation space for the printer is increased in a depth direction (*Id.*).

Furthermore, the rolls of papers for large printers are correspondingly large, and quite heavy (Appellant's specification: p. 1, ln. 25 to p. 2, ln. 1). Accordingly, there is a need for a large printer (using heavy rolls of paper) that permits a user to replace a roll of the paper from the front of the printer while standing, and without bending at the waist (Appellant's specification: p. 2, lns. 1-3). Further still, there is a need for a large printer (using heavy rolls of paper) that can also print large sheets of stiff carton (Appellant's specification: p. 2, lns. 3-5).

**Claims 1-2 and 5-6**

Claim 1 is directed to a large printer with a paper feeding unit operable to feed a roll of paper, a flat sheet of paper and a stiff carton. In claim 1, the paper feeding unit is located at a height so that a user (who is approximately 170 cm tall) standing in front of the printer can load the roll of paper, the sheet of paper and the stiff carton. A printing unit is located below the paper feeding unit and a discharged paper stacking unit is located below the printing unit. A



paper feeding path extends in substantially a straight line from the paper feeding unit to the discharged paper stacking unit via the printing unit.

In the large printer, paper rolls may be detachably loaded in the paper feeding unit such that they are arranged obliquely, relative to the vertical direction (*see* claim 2).

In the large printer, the paper feeding path may extend straight from an upper rear portion of the large printer to a lower front portion of the large printer (*see* claim 5).

In the large printer, the paper feeding path may extend in the vertical direction (*see* claim 6).

#### Claim 3

Claim 3 is directed to a large printer similar to the large printer recited in claim 1, and wherein the paper feeding unit includes a cover member for covering the roll of paper from above and for supporting the stiff carton from below.

#### Claim 4

Claim 4 is directed to a large printer having a paper feeding unit. In claim 4, the paper feeding unit includes a pair of spindle receptacles into which both ends of an elongated spindle (on which a roll of paper is mounted) are inserted. At least one of these spindle receptacles is rotatable in a horizontal plane. In this manner, one end of the spindle can be inserted into a spindle receptacle and, thereafter, another end of the spindle can be inserted into another spindle receptacle by rotating the spindle so as to pivot on the rotatable spindle receptacle.

Claims 13 and 17

Claim 13 is directed to a large printer having a sheet feeding area that is positioned at a height so that a user (who is approximately 170 cm tall) can load a printing medium, without having to bend substantially at the waist, when the user is standing erect in front of the printer. In claim 13, both the user and the printer are located substantially at ground level.

The large printer may also include a printing area; a paper discharge area; and a paper feeding path extending from the paper feeding area to the paper discharge area via the printing area (*see* claim 17). The paper feeding area is located in an upper rear portion of the large printer and the paper discharge area is located in a lower front portion of the large printer.

Claim 15

Claim 15 is directed to a large printer having a sheet feeding area operable to feed a roll of paper, a sheet of paper and a stiff carton toward a printing unit for printing thereon. In claim 15, the large printer includes a cover member, which covers a first feeding path for the roll of paper from above, and which supports the sheet of paper and the stiff carton from below to constitute a part of a second feeding path. The cover member extends linearly from an upstream portion to a downstream portion with respect to a direction in which the sheet of paper or the stiff carton is fed at the sheet feeding area. Furthermore, the cover member is disposed between the sheet of paper, or the stiff carton, and the roll of paper at a location in the sheet feeding area at which the roll of paper is in a rolled shape.

Claim 16

Claim 16 is directed to a large printer having a sheet feeding area positioned at a height so that a user (who is approximately 170 cm tall and standing in front of the printer) can load a printing medium without having to bend substantially at the waist. In claim 16, the large printer includes an elongative member disposed in the paper feeding area for holding the printing medium, and a pair of support members for supporting both ends of the elongative member, at least one of the support members being pivotable toward the front of the printer.

Claim 18

Claim 18 is directed to a large printer having a sheet feeding area positioned at a height at which a user (who is approximately 170 cm tall and standing in front of the printer) can load a printing medium without having to bend substantially at the waist, when the large printer is placed substantially at ground level. The large printer includes a printing area; a paper discharge area; and a paper feeding path which extends straight in a vertical direction from the paper feeding area to the paper discharge area via the printing area.

Claims 26 and 31

Claim 26 is directed to a large printer having a sheet feeding area operable to feed rolls of papers ranging in width from 210 mm to 1120 mm, flat sheets of paper ranging in length from 420 mm to 1580 mm and stiff cartons ranging in length from 420 mm to 730 mm.

In the large printer, the flat sheets of paper have a thickness of less than 0.5 mm, and the stiff cartons have a thickness ranging from 0.5 mm to 1.5 mm (*see* claim 31).

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

Means-Plus-Function Claims

No means-plus-function or step-plus-function have been identified among the claims on appeal.

**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claims 1-6, 13 and 16-18 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.
2. Claims 1, 5-6, 16, 26 and 31 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 5,838,354 to Yamada et al. (hereinafter “Yamada”).
3. Claims 13, 18, 26 and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by EP 0727375 to Orbons et al. (hereinafter “Orbons”).
4. Claims 13, 17-18, 26 and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by the IP-4000 device<sup>2</sup>.
5. Claims 1, 3, 5-6, 13, 17-18, 26 and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by the OCE 9400 device.
6. Claims 16, 26 and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by JP 63154558<sup>3</sup> to Takumi (hereinafter “Takumi”).
7. Claim 2 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamada in view of Orbons.
8. Claims 13 and 17 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 938,885 to McCulley (hereinafter “McCulley”) in view of U.S. Patent No. 1,128,730 to Smedal (hereinafter “Smedal”).

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<sup>2</sup> Appellant submitted a copy of a Brochure for the IP-4000 device to the Patent Office on May 10, 2004.

<sup>3</sup> Appellant submitted this reference in an IDS filed on February 3, 2004.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

9. Claim 15 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 2,300,276 to Hageman (hereinafter "Hageman") in view of U.S. Patent No. 2,904,332 to Metzner (hereinafter "Metzner").

## **VII. ARGUMENT**

### **1. Claims 1-6, 13 And 16-18 Are Definite Under § 112, Second Paragraph**

Claims 1-6, 13 and 16-18 stand rejected under § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner notes that the claims recite a sheet feeding area positioned at a height at which a user who is approximately 170 cm tall, standing in front of the printer, does not have to bend substantially at the waist when setting up the printing area. Then, the Examiner asks “What is this height?”

With respect to the Examiner’s query as to whether Appellant is claiming a person, it is respectfully submitted that one of ordinary skill in the art would recognize that the user is not being claimed. Instead, the user is merely recited to provide a point of reference for ascertaining the height of the paper feeding unit of the large printer.<sup>4</sup>

The Examiner’s questions relating to a user who is 160 cm tall or who is sitting or kneeling are irrelevant, as they don’t relate to a user who is approximately 170 cm tall and who is standing in front of the printer, which is the user that would be accommodated by the height of the paper feeding unit of the large printer recited in the claims.

Furthermore, the Examiner concludes that one of ordinary skill in the art would not be able to determine if he/she were infringing the claims. Appellant respectfully disagrees. As an

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<sup>4</sup> Although the Examiner does not appear to approve of this manner of reciting the height, it is an established axiom that an applicant is free to be his/her own lexicographer (*see* MPEP § 2173.01).

example, for claim 1, to ascertain whether a large printer is infringing, one need ascertain, *inter alia*, whether the large printer has a paper feeding unit that is located at a height that would allow a user, who is approximately 170 cm tall and standing in front of the large printer, to execute a paper feeding process. If the height of the paper feeding unit of the large printer would not allow such a user to execute the paper feeding processing, the large printer would not infringe claim 1.

Accordingly, claims 1-6, 13 and 16-18 are sufficiently definite under § 112, second paragraph.

## **2. Claims 1, 5-6, 16, 26 And 31 Are Not Anticipated By Yamada**

As noted above, claims 1, 5-6, 16, 26, and 31 stand rejected under § 102(e) as allegedly being anticipated by Yamada.

### *A. Claims 1 and 5-6*

Claim 1 states that a large printer has a paper feeding unit capable of feeding a roll of paper, a substantially flat sheet of paper and a stiff carton. It is respectfully submitted that Yamada fails to disclose or suggest a paper feeding unit operable to feed at least one roll of paper, at least one substantially flat sheet of paper and at least one stiff carton, as recited in claim 1.

Instead, Yamada describes a paper feed station 1 that can accommodate a plurality of roll sheets such as roll sheets 101, 102 and 103 (Yamada: Fig. 2; col. 6, lines 34-37). Yamada fails to disclose or suggest that the paper feed station 1 is capable of feeding anything other than a roll of paper, let alone the recited sheet of paper and stiff carton.

Furthermore, claim 1 recites that the large printer has "a paper feeding unit [] located at a



height that enables a user, who is approximately 170 cm tall, standing in front of the printer to execute the paper feeding process.”

It is respectfully submitted that Yamada fails to disclose or suggest these features of claim 1. For example, Yamada fails to disclose or suggest any relationship between a located height of a paper feeding unit and a user standing in front of the printer. Indeed, the static image conveyed by Fig. 29 of Yamada does not include an illustrated user therein for reference (*c.f.*, Appellant's Fig. 1).

Accordingly, claim 1 is not anticipated by Yamada for at least these reasons. Consequently, claims 5 and 6 are not be anticipated by Yamada, at least by virtue of their dependency.

*B. Claim 16*

Claim 16 recites that a large printer has "a sheet feeding area positioned at a height at which a user, who is approximately 170 cm tall, standing in front of the printer can set up a printing medium without having to bend substantially at the waist.”

It is respectfully submitted that Yamada fails to disclose or suggest these features of claim 16. For example, Yamada fails to disclose or suggest any relationship between a located height of a paper feeding unit and a user standing in front of the printer. Indeed, the static image conveyed by Fig. 29 of Yamada does not include an illustrated user therein for reference (*c.f.*, Appellant's Fig. 1).

Accordingly, claim 16 is not anticipated by Yamada for at least the above exemplary reasons.

*C. Claims 26 and 31*

Claim 26 states that a sheet feeding area is operable to feed a plurality of sheets of paper, a substantially flat sheet of paper and at least one stiff carton. Thus, claim 26 is not anticipated by Yamada based on a rationale analogous to that set forth above for claim 1, as well as the additional features recited therein.

For example, claim 26 recites “a sheet feeding area operable to feed a plurality of paper rolls ranging in width from 210 mm to 1120 mm, a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm and at least one stiff carton ranging in length from 420 mm to 730 mm.” In addition to failing to disclose or suggest a sheet feeding area operable to feed a plurality of rolls, a substantially flat sheet of paper and at least one stiff carton, Yamada fails to disclose or suggest the recited ranges of the print mediums.

Accordingly, claim 26 is not anticipated by Yamada for at least the above exemplary reasons. Consequently, claim 31 is not anticipated by Yamada at least by virtue of its dependency.

**3. Claims 13, 18, 26 And 31 Are Not Anticipated By Orbons**

Claims 13, 18, 26 and 31 stand rejected under § 102(b) as allegedly being anticipated by Orbons.

*A. Claims 13 and 18*

Claim 13 recites, *inter alia*, “a sheet feeding area positioned at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the printer and standing

substantially at ground level."

Conversely, Orbons describes a channel 35, 36, 37, 48, 49 that is formed at a working height for a standing operator (Orbons: Abstract; and Fig. 1). This channel allows a standing user to place a roll of receiving material 16, 17, 18, 19 having a hollow core 30 in the channel so that a spindle 31 can be introduced into the roll core 30 (Orbons: Abstract). The feed unit 2 of Orbons is located below this channel and thus is below a working height for a standing operator (Orbons: Fig. 1).

Consequently, a standing operator in Orbons would necessarily have to bend substantially, *i.e.*, non-negligibly, at the waist in order to load the rolls of receiving material 16, 17 into drawer 14 of the feed unit 2 (Orbons: Fig. 1). Indeed, Orbons expressly discloses that the user must bend in order to introduce the rolls 16, 17 into the drawer 14 (Orbons: col. 5, lines 2-7; Fig. 1).

For at least these exemplary reasons, claim 13 is not anticipated by Orbons. Claim 18 recites features similar to those described above for claim 13 and, thus, claim 18 is not anticipated by Orbons based on a rationale analogous to that set forth above for claim 13.

*B. Claims 26 and 31*

Claim 26 recites "a sheet feeding area operable to feed a plurality of paper rolls ranging in width from 210 mm to 1120 mm, a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm and a stiff carton ranging in length from 420 mm to 730 mm."

Orbons fails to disclose or suggest a sheet feeding area operable to feed a plurality of paper rolls of the recited dimensions (widths), a substantially flat sheet of paper of the recited

dimensions (lengths) and a stiff carton of the recited dimensions (lengths).

Accordingly, claim 26 is not anticipated by Orbons for at least the above exemplary reasons. Consequently, claim 31 is not anticipated by Orbons at least by virtue of its dependency.

**4. Claims 13, 17-18, 26 And 31 Are Not Anticipated By The IP-4000 Device**

Claims 13, 17-18, 26 and 31 stand rejected under § 102(b) as allegedly being anticipated by the IP-4000 device.

*A. Claims 13 and 18*

Claim 13 recites, *inter alia*, “a sheet feeding area positioned at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the printer and standing substantially at ground level.”

The Examiner fails to establish that the IP-4000 device discloses or suggests a sheet feeder area positioned in such a manner as recited in claim 13. In particular, the dimensions listed on page 3 of the IP-4000 device publication do not disclose or suggest the recited sheet feeding area. Accordingly, claim 13 is not anticipated by the IP-4000 device.

Claim 18 recites features similar to those described above for claim 13 and, thus, claim 18 is not anticipated by the IP-4000 device based on a rationale analogous to that set forth above for claim 13.

*B. Claim 17*

Claim 17 recites, *inter alia*, “a paper feeding path extending from the paper feeding area

to the paper discharge area via the printing area, wherein the paper feeding area is located in an upper rear portion of the printer and the paper discharge area is located in a lower front portion of the printer.”

The Examiner fails to establish that the IP-4000 device discloses or suggests the recited location of the paper feeding area and the paper discharge area, such that a paper feeding path extends from the paper feeding area to the paper discharge area via the printing area. In particular, the figures shown on the cover and page 2 of the IP-4000 device publication do not disclose or suggest the recited paper feeding area in an upper rear portion of the printer and the recited paper discharge area in a lower front portion of the printer, let alone the recited paper feeding path. Accordingly, claim 17 is not anticipated by the IP-4000 device.

*C. Claims 26 and 31*

Claim 26 recites “a sheet feeding area operable to feed a plurality of paper rolls ranging in width from 210 mm to 1120 mm, a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm and a stiff carton ranging in length from 420 mm to 730 mm.”

The Examiner fails to establish that the IP-4000 device discloses or suggests the recited sheet feeding area operable to feed a plurality of paper rolls of the recited dimensions (widths), a substantially flat sheet of paper of the recited dimensions (lengths) and a stiff carton of the recited dimensions (lengths). In particular, the dimensions of the printer itself, as set forth on page 3 of the IP-4000 device publication, do not relate to operation of any sheet feeding area, let alone disclose or suggest the recited sheet feeding area that can handle different types of printing media, within the recited ranges. Accordingly, claim 26 is not anticipated by the IP-4000 device

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

for at least the above exemplary reasons. Consequently, claim 31 is not anticipated by the IP-4000 device at least by virtue of its dependency.

**5. Claims 1, 3, 5-6, 13, 17-18, 26 And 31 Are Not Anticipated By The OCE 9400 Device**

Claims 1, 3, 5-6, 13, 17-18, 26 and 31 stand rejected under § 102(b) as allegedly being anticipated by the OCE 9400 device.

The Examiner, however, provides no rationale for his conclusory statement that “claims 13, 17-18, 26 and 31 are clearly anticipated by the OCE 9400 device” (*see* Office Action dated January 24, 2005: p. 3). In particular, the Examiner’s allegation was expressly refuted in Appellant’s Amendment filed on November 1, 2004. Accordingly, the Examiner fails to meet his burden of establishing that each and every feature of the rejected claims are disclosed or suggested by the OCE 9400 device. Furthermore, it is respectfully submitted that claims 1, 3, 5-6, 13, 17-18, 26 and 31 are not anticipated by the OCE 9400 device.

**6. Claims 16, 26 And 31 Are Not Anticipated By Takumi**

Claims 16, 26 and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by JP 63154558 to Takumi (hereinafter “Takumi”).

*A. Claim 16*

Claim 16 recites, *inter alia*, “a sheet feeding area positioned at a height at which a user, who is approximately 170 cm tall, standing in front of the printer can set up a printing medium without having to bend substantially at the waist.”

The Examiner alleges that claim 16 is anticipated by Takumi because Takumi discloses a sheet feeding area with an elongative member and a pair of supports pivotable toward the front

of the printer (*see* Office Action dated January 24, 2005: p. 3). Appellant respectfully disagrees.

For example, Takumi fails to disclose or suggest a sheet feeding area that is positioned at a height at which a user (who is 170 cm tall) standing in front of the printer can set up a printing medium without having to bend substantially at the waist. Indeed, Takumi fails to disclose or even suggest any positioning of a sheet feeding area at a height relative to a user.

Accordingly, claim 16 is not anticipated by Takumi for at least the above exemplary reasons.

*B. Claims 26 and 31*

Claim 26 recites “a sheet feeding area operable to feed a plurality of paper rolls ranging in width from 210 mm to 1120 mm, a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm and a stiff carton ranging in length from 420 mm to 730 mm.”

Appellant notes that the Examiner’s comments do not appear to be directed to the features of claims 26 and 31 (*see* Office Action dated January 24, 2005: p. 3). Furthermore, it is respectfully submitted that Takumi fails to disclose or suggest a sheet feeding area operable to feed a plurality of paper rolls of the recited dimensions (widths), a substantially flat sheet of paper of the recited dimensions (lengths) and a stiff carton of the recited dimensions (lengths).

Accordingly, claim 26 is not anticipated by Takumi for at least the above exemplary reasons. Consequently, claim 31 is not anticipated by Takumi at least by virtue of its dependency.

**7. Claim 2 Is Not Rendered Obvious By The Proposed Combination Of Yamada In View Of Orbons**

Claim 2 stands rejected under § 103(a) as allegedly being unpatentable over Yamada in view of Orbons.

Since claim 1 is not anticipated by Yamada for the reasons set forth above and since Orbons fails to make up for the deficiencies of Yamada (described above with respect to claim 1), it is respectfully submitted that claim 2 is patentable over the proposed combination of Yamada and Orbons at least by virtue of its dependency.

**8. Claims 13 And 17 Are Not Rendered Obvious By The Proposed Combination Of McCulley In View Of Smedal**

Claims 13 and 17 stand rejected under § 103(a) as allegedly being unpatentable over McCulley in view of Smedal.

As an initial matter, it is respectfully submitted that McCulley and Smedal represent non-analogous art in that they both relate to typewriters, which are not large printers, as recited in claims 13 and 17. Typewriters do not generally suffer from the problems encountered by large printers. For example, typewriters would not require a deeper installation space for replacing a paper roll or require that a user replace a heavy roll of paper (*see, e.g.*, Appellant's specification: p. 1, ln. 1 to p. 2, ln. 19). Indeed, Appellant's specification clearly describes the aforementioned exemplary problems encountered by large printers (*see, e.g.*, Appellant's Specification: p. 1, lns. 5-7; p. 1, lns. 8-12; p. 1, ln. 25 to p. 2, ln. 5; p. 2, lns. 12-19; p. 2, ln. 23 to p. 3, ln. 5; and Figs. 1 and 4).

Appellant notes that a reasonable interpretation of the claims must be consistent with the



interpretation that those skilled in the art would reach (MPEP § 2111). The title of Appellant's invention is *Large Printer*. Furthermore, all of the pending claims are directed to large printers (*see, e.g.*, Appellant's claims 13 and 17). Typewriters are not large printers. Consequently, because McCulley and/or Smedal represent non-analogous art, the rejection of claims 13 and 17 under § 103(a) is improper.

Furthermore, the Examiner acknowledges that McCulley fails to teach or suggest "a sheet feeding area positioned at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the printer and standing substantially at ground level," as recited in claim 13 (*see* Office Action dated January 24, 2005: pp. 4-5). However, the Examiner alleges that Smedal makes up for the acknowledged deficiencies of McCulley by disclosing a roll attachment for type writers that includes a frame (5) with a vertical leg (3) adapted to be supported at any elevation (*citing* Smedal: p. 1, lns. 85-90), including a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the printer and standing substantially at ground level, when the printer is placed substantially at ground level, for the purpose of adapting the attachment to any type writing machine.

It is respectfully submitted that the Examiner is mischaracterizing Smedal. For example, Smedal does not disclose a frame (5) with a vertical leg (3) adapted to be supported at any elevation. Instead, Smedal discloses that a frame 5 with a vertical leg 3 adapted to be supported at any desired elevation within the post 2 (*see* Smedal: p. 1, lns. 86-89; and Fig. 5). Smedal does

not disclose or even suggest that an elevation of the vertical leg 3 within the post 2 would position a sheet feeding area of the attachment at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the typewriter and standing substantially at ground level.

Furthermore, if a typewriter is placed substantially at ground level, as required by claim 13, a user would almost certainly have to bend substantially at the waist to set up the printing medium, notwithstanding the paper roll carrying means of Smedal.

For at least these exemplary reasons, it is respectfully submitted that the proposed combination of McCulley and Smedal does not render the subject matter of claim 13 obvious. Consequently, claim 17 is patentable over McCulley and Smedal at least by virtue of its dependency.

**9. Claim 15 Is Not Rendered Obvious By The Proposed Combination Of Hageman In View Of Metzner**

Claim 15 stands rejected under § 103(a) as allegedly being unpatentable over Hageman in view of Metzner.

Claim 15 recites "a cover member, which covers a first feeding path for the roll of paper from above, and which supports at least one of the sheet of paper and the stiff carton from below to constitute a part of a second feeding path for the sheet of paper."

The Examiner alleges that Hageman discloses a cover member that covers a feeding path and that Metzner discloses a structure that covers a sheet (*see* Office Action dated January 24, 2005: p. 5). In particular, the Examiner's position is that housing 45 and guide plate 42 of

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

Hageman, as well as guide member 23 of Metzner, render the cover member of claim 15 obvious. Appellant disagrees.

For example, Hageman fails to teach or suggest "a cover member, which covers a first feeding path for the roll of paper from above," as recited in claim 15. The Examiner asserts that Hageman discloses two cover members 45 and 42 (*see, e.g.*, Hageman: Fig. 4). Hageman describes a housing/spool 45 surrounding a carbon supply roll 46, and a separate guide plate 42 (*Id.*). However, neither housing 45 nor guide plate 42, either alone or in combination, "covers a first feeding path for the roll of paper from above." Indeed, both a record strip S and a carbon strip C follow a feeding path (above support rail 48) which is uncovered (*Id.*).

Furthermore, the Examiner acknowledges that Hageman fails to teach or suggest that "the cover member extends linearly from a upstream portion thereof to a downstream portion thereof in connection with a direction in which the sheet of paper is fed" or that "the cover member is disposed between the sheet of paper and the roll of paper at a location in the sheet feeding area at which the roll of paper is in a rolled shape", as recited in claim 15 (*see* Office Action dated January 24, 2005: p. 5). However, the Examiner asserts that Metzner makes up for these deficiencies of Hageman.

The Examiner states that Metzner describes a cover member 23 that extends linearly from an upstream portion to a downstream portion in which a sheet of paper is fed and that the cover member is disposed between a sheet of paper and a feed pack at a location in the feed pack area for the purpose of continuously supporting the paper from the pack to the printing area. Metzner describes separating a record strip material 14 into its component parts, each of which is directed

into a separate chute defined by downwardly and rearwardly inclining deflector guides 22 and 23 (see Metzner: Fig. 1). However, Metzner fails to make up for the deficiencies of Hageman for at least the following illustrative reasons.

First, Metzner fails to teach or suggest a cover member provided in the sheet feeding area, as recited in claim 15. Instead, the deflector guides 23 of Metzner relied on by the Examiner are for discharging papers on which printing has been performed (*Id.*).

Second, Metzner fails to teach or suggest that "the cover member extends linearly from a upstream portion thereof to a downstream portion thereof in connection with a direction in which the sheet of paper is fed," as recited in claim 15. Metzner fails to teach or suggest a cover member. The deflector guides 23 relied on by the Examiner are for guiding the component parts of the record strip material 14 (after recording) into the appropriate chutes (*Id.*). Furthermore, Metzner describes feeding a pack of series connected record forms 13 (supported by a shelf 12) into a recording machine 11 (*Id.*). However, the deflector guides 22 and 23 extend from an upstream portion to a downstream portion in a direction opposite to the direction in which the sheet of paper is fed (*Id.*).

Third, Metzner fails to teach or suggest that "the cover member is disposed between the sheet of paper and the roll of paper at a location in the sheet feeding area at which the roll of paper is in a rolled shape" (emphasis added). The Examiner alleges that Metzner discloses a cover member that is disposed between a sheet of paper and a feed pack at a location in the feed pack area for the purpose of continuously supporting the paper from the pack to the printing area. However, even assuming *arguendo* that the Examiner's allegation is correct, Metzner still fails to

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

teach or suggest the claimed invention. Metzner describes a pack of series connected record forms 13 and not a roll of paper. Indeed, the use of these series connected forms appears to facilitate the collection of used record strip elements R on depressed portions 24 against uprights 25, whereas previously rolled paper would be difficult (at best) to collect in this manner (*Id.*).


Accordingly, it is respectfully submitted that claim 15 is patentable for at least the above exemplary reasons.

In conclusion, for the reasons set forth above, Appellant respectfully requests the members of the Board to reverse the rejections of the appealed claims and to find each of the claims allowable as defining subject matter that is patentable over the art of record.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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**23373**

CUSTOMER NUMBER

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Registration No. 52,156

Date: June 22, 2005

**CLAIMS APPENDIX**

CLAIMS 1-6, 13, 15-18, 26 AND 31 ON APPEAL:

1. A large printer comprising:

a paper feeding unit operable to feed at least one roll of paper, at least one substantially flat sheet of paper and at least one stiff carton, the paper feeding unit being located at a height that enables a user, who is approximately 170 cm tall, standing in front of the printer to execute the paper feeding process including replacement of the roll paper and setting at least one of the sheet of paper and the stiff carton;

a printing unit located below the paper feeding unit,

a discharged paper stacking unit located below the printing unit; and

a paper feeding path extending in a substantially straight line from the paper feeding unit to the discharged paper stacking unit via the printing unit.

2. The large printer as set forth in claim 1, wherein a plurality of paper rolls are detachably loaded in the paper feeding unit such that the plural paper rolls are arranged obliquely, relative to the vertical direction.

3. A large printer comprising:

a paper feeding unit operable to feed at least one roll of paper, at least one substantially flat sheet of paper and at least one stiff carton, the paper feeding unit being located at a height that enables a user standing in front of the printer to execute the paper feeding process including

replacement of the roll paper and setting at least one of the sheet of paper and the stiff carton;

a printing unit located below the paper feeding unit,

a discharged paper stacking unit located below the printing unit; and

a paper feeding path extending in a substantially straight line from the paper feeding unit to the discharged paper stacking unit via the printing unit,

wherein the paper feeding unit includes a cover member for covering the roll of paper from above and for supporting the supplied stiff carton from therebelow.

4. A large printer comprising:

a paper feeding unit operable to feed at least one roll of paper, at least one substantially flat sheet of paper and at least one stiff carton, the paper feeding unit being located at a height that enables a user standing in front of the printer to execute the paper feeding process including replacement of the roll paper and setting at least one of the sheet of paper and the stiff carton;

a printing unit located below the paper feeding unit,

a discharged paper stacking unit located below the printing unit; and

a paper feeding path extending in a substantially straight line from the paper feeding unit to the discharged paper stacking unit via the printing unit,

wherein the paper feeding unit includes at least a pair of spindle receptacles into which both ends of an elongated spindle, on which a paper roll is mounted, are inserted,

wherein at least one of the spindle receptacles is rotatable in a horizontal plane, and

whereby one end of the spindle can be inserted into said at least one spindle receptacle

and thereafter another end of the spindle is inserted into another spindle receptacle by rotating the spindle so as to pivot on the rotatable spindle receptacle.

5. The large printer as set forth in claim 1, wherein the paper feeding path extends straight from an upper rear portion of the printer to a lower front portion thereof.

6. The large printer as set forth in claim 1, wherein the paper feeding path extends in the vertical direction.

13. A large printer comprising:  
a sheet feeding area positioned at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the printer and standing substantially at ground level,  
wherein the sheet feeding area is positioned at the height when the printer is placed substantially at the ground level.

15. A large printer comprising:  
a sheet feeding area operable to feed at least one roll of paper, at least one sheet of paper and at least one stiff carton toward a printing unit at which printing is performed thereon; and  
a cover member, which covers a first feeding path for the roll of paper from above, and which supports at least one of the sheet of paper and the stiff carton from below to constitute a



part of a second feeding path for the sheet of paper,

wherein the cover member extends linearly from an upstream portion thereof to a downstream portion thereof in connection with a direction in which at least one of the sheet of paper and the stiff carton is fed at the sheet feeding area, and

wherein the cover member is disposed between at least one of the sheet of paper and the stiff carton and the roll of paper at a location in the sheet feeding area at which the roll of paper is in a rolled shape.

16. A large printer comprising:

a sheet feeding area positioned at a height at which a user, who is approximately 170 cm tall, standing in front of the printer can set up a printing medium without having to bend substantially at the waist,

wherein the sheet feeding area is positioned at the height when the printer is placed substantially at ground level, the large printer further comprising:

an elongative member disposed in the paper feeding area for holding the printing medium, and

a pair of support members for supporting both ends of the elongative member, at least one of the support members being pivotable toward the front of the printer.

17. The large printer as set forth in claim 13, further comprising:

a printing area;

a paper discharge area; and

a paper feeding path extending from the paper feeding area to the paper discharge area via the printing area,

wherein the paper feeding area is located in an upper rear portion of the printer and the paper discharge area is located in a lower front portion of the printer.

18. A large printer comprising:

a sheet feeding area positioned at a height at which a user, who is approximately 170 cm tall, standing in front of the printer can set up a printing medium without having to bend substantially at the waist, wherein the sheet feeding area is positioned at the height when the printer is placed substantially at ground level,

a printing area;

a paper discharge area; and

a paper feeding path which extends straight in a vertical direction from the paper feeding area to the paper discharge area via the printing area.

26. (previously presented): A large printer comprising:

a sheet feeding area operable to feed a plurality of paper rolls ranging in width from 210 mm to 1120 mm, a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm and at least one stiff carton ranging in length from 420 mm to 730 mm.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

31. (previously presented): The large printer as set forth in claim 26, wherein the flat sheet of paper has a thickness of less than 0.5 mm and the stiff carton has a thickness ranging from 0.5 mm to 1.5 mm.

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• APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

**EVIDENCE APPENDIX:**

NONE.

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• APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No. 09/386,000  
Attorney Docket No. Q55595

**RELATED PROCEEDINGS APPENDIX**

NONE.